

## WORKING COMMITTEES

<b>Secretariat/ Registration</b>	Ms. Charito L. Samsam	-	Chairman
	Ms. Araceli J. Badar	-	Co-chair
	Ms. Ma. Concepcion B. Birginias		
	Ms. April Mae A. Patac		
	Ms. Milen M. Inocencio		
	Mr. Don Carlo C. Batara		
	Ms. Maria Cristina P. Pammit		
Ms. Ruby Rose A. Sablot			
<b>Program/ Invitation</b>	Ms. Evangeline S. Galacgac	-	Chairman
	Ms. Lea C. Agbigay	-	Co-chair
	Ms. Diana Marie O. Pitpitan		
	Mr. Mario I. Remolacio		
	Mr. Erle Stanley G. Damaso		
	Ms. Maria Cristina P. Pammit		
<b>Documentation/ Multimedia Presentation</b>	Ms. Lea C. Agbigay	-	Chairman
	Ms. Mary Ann B. Gorospe	-	Co-chair
	Ms. Leah M. Tute		
	Mr. Rodel C. Cabugon		
	Ms. Nataliza L. Llapitan		
<b>Awards/Certificate</b>	Ms. Leah M. Tute	-	Chairman
	Ms. Corazon Diana A. Pastor	-	Co-Chair
	Mr. Constante B. Julian		
	Ms. Rosalinda Q. Santiago		
<b>Food</b>	Ms. Rosalinda Q. Santiago	-	Chairman
	Ms. Corazon C. Sugui	-	Co-chair
	Mr. Pio G. Belen, Jr.		
	Ms. Marylis A. Nalundasan		
	Ms. Maricel G. Billiones		
	Ms. Christine B. Quiapo		
<b>Hall/ Stage Preparation and Demolition</b>	Engr. Rodel T. Utrera	-	Chairman
	Dr. Susan G. Aquino	-	Co-chair
	Mr. Benito B. Balneg		
	Mr. Rodel N. Bañez		
	Engr. Joemel G. Agreda		
	Engr. Psalm David A. Pastor		
	Engr. Sherwin B. Bartolome		
	Mr. Jeremy Christian Q. Santiago		
Mr. Eleazar O. Grande			
<b>Moderators/ Facilitators</b>	Dr. Criselda M. Balisacan	-	Chairman
	Dr. Dionisio S. Bucao	-	Co-chair
	Ms. Noralyn T. Legaspi		
	Ms. Menisa A. Antonio		
	Mr. Constante B. Julian		
	Ms. Nataliza L. Llapitan		
<b>Rapporteurs</b>	Ms. Marissa I. Atis	-	Chairman
	Ms. Leticia A. Lutap	-	Co-chair
	Ms. Zenaida S. Pugat		
	Ms. Aleta E. Dumaoal		
	Ms. Alecsis G. Villarin		
	Ms. Maingeline B. Vivit		
	Ms. Josefa S. Pugat		



Mariano Marcos State University  
Research Directorate  
City of Batac, Ilocos Norte



# 2017 UNDERGRADUATE THESIS COMPETITION

03 August 2017, 8:00 AM  
MMSU, CRL-OSIS

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*You're invited*

## PART III. AWARDING CEREMONIES

# PROGRAM OF ACTIVITIES

### PART 1. OPENING PROGRAM

8:00 -- 08:30 REGISTRATION

8:31 -- 09:00 OPENING PROGRAM

Prayer	<b>Ms. Maingeline B. Vivit</b> <i>Science Research Assistant</i>
National Anthem & MMSU Hymn	<b>Ms. Cecille A. Gaoat</b> <i>Science Research Assistant</i>
Welcome Remarks & Rationale	<b>Dr. Criselda M. Balisacan</b> <i>Asst. Director, Research</i>
Message	<b>Dr. Prima Fe R. Franco</b> <i>VP, Academic Affairs</i>
Guidelines of the Competition & Introduction of Evaluators	<b>Dr. Susan G. Aquino</b> <i>Education Program Specialist II</i>
	<b><u>Nataliza L. Llapitan</u></b> <i>Training Specialist I</i> <b>Master of Ceremony</b>

Synthesis

Chair, Panel of Evaluators

Announcement of Winners

**Dr. Criselda M. Balisacan**  
*Asst. Director, Research*



### PANEL OF EVALUATORS

#### **Session A. Agriculture, Natural and Physical Sciences**

**DR. DIONISIO S. BUCAO**  
*Supervising Education Program Specialist*  
Research, MMSU

**PROF. FACUNDO B. ASIA**  
*Retired Professor*  
CASAT, MMSU

**MS. KATRINA A. LUTAP**  
*PhD candidate*  
Molecular, Cellular & Developmental Biology

#### **Session B. Arts, Education, Health and Social Sciences**

**MS. BETHZAIDA M. CATUDAN**  
*Supervising Science Research Specialist*  
Philippine Rice Research Institute

**MS. NELLIE U. CASTRO**  
*Supervising Science Research Specialist*  
National Tobacco Administration

**PROF. RYAN DEAN T. SUCGANG**  
*Professor / Secretary*  
CHS/COM, MMSU



9:41-10:00	The tinguian group's cultural preservation in Ilocos Norte: A narrative documentary/ <i>Gwen Calabucal, Aljon Tugaoaen, Princess Lazaga (CAS)</i> Adviser: <i>Prof. Eufe P. Madariaga</i>
10:01-10:20	Gender structured adaptation practices of residents in flood prone barangay in Paoay, Ilocos Norte/ <i>Lord Hendritch Cavil (CAS)</i> Adviser: <i>Prof. Weena G. Franco</i>
10:21-10:40	Knowledge and acceptability on the use of eHealth (RxBox) by health care providers of Ilocos Norte/ <i>Clifford M. Amoda, Jose Levy J. Antiporda, Trisha Jessica D. Basit, Lyka Gay V. Batallones, Ria Mae D. Chan, Vivien Fransec B. Corpuz, Jefelyn P. Garo (CHS)</i> Adviser: <i>Prof. Teresita Ann O. Tinio</i>
10:41-11:00	Effectiveness of virtual reality system as treatment approach in stroke rehabilitation/ <i>Ruben Ancheta II, Sharmay Joy Lagmay, Harvey Klein Manuel, Patrick Jan Reyes, Irvin Benedict Rotol, Melissa Joy Sanguir, John Reiwille Simeon (CHS)</i> Adviser: <i>Prof. Ruth Anne Claricel P. Batin</i>

11:01-12:00 **EVALUATORS' DELIBERATION**

## PART II. THESIS PRESENTATION

### Session A. Agriculture, Natural and Physical Sciences

Moderator: Ms. Menisa A. Antonio

9:01-9:20	Organic aquaculture of Nile tilapia ( <i>Oreochromis niloticus</i> ) in skyponds of Adams, Ilocos Norte/ <i>Reynaldo D. Baldo (CASAT)</i> Adviser: <i>Dr. Veronica O. Grande</i>
9:21-9:40	Design, fabrication and testing of an automatic dissolved oxygen regulating system for fishponds/ <i>Rodney Ryan L. Bareng, Wenju Karlo S. Barroga, John Ceasar M. dela Cruz, Jordan B. Ortiz, Heisen Jay Paguirigan (COE)</i> Adviser: <i>Prof. Luzaldo V. Crisostomo</i>
9:41-10:00	Anti-oxidant activity and cytotoxicity of black garlic ( <i>Allium sativum L. var</i> ) Ilocos white against selected cancer cell lines/ <i>Aira Cassandra S. Castro (CAS)</i> Adviser: <i>Dr. Shirley C. Agrupis</i>
10:01-10:20	Cytotoxicity and mitodepressive activity of <i>Padina crassa</i> (Yamada, 1931)/ <i>Christopher Diondel S. Duque (CASAT)</i> Adviser: <i>Prof. Andres Y. Tungpalan</i>
10:21-10:40	Anti-acne and tyrosinase inhibition activities of propolis from Philippine stingless bee/ <i>Esther Faith S. Gabriel, Princess May Gagala, Rica Lea M. Mata, Raymund Marc B. Pastrana, Shayna Angelie E. Ramajo (CHS)</i> Adviser: <i>Prof. Angelina May DC. Mendoza</i>

10:41-11:00	Species composition of macrofauna in Malagao River, Adams, Ilocos Norte/ <i>Roger V. Agandao, Jr. (CASAT)</i> Adviser: <i>Prof. Michelle A. De Vera</i>
11:01-11:20	Platelet augmentation activity of suma from Pinili, Ilocos Norte: Munno-munnot ( <i>Clausena sanki</i> ), ngarusangis ( <i>Enretia microphylla</i> ), barsanga ( <i>Eleusine indica</i> ) and Ilocos white bawang ( <i>Allium sativum</i> )/ <i>Lois Lyn L. Gacosta, Annielyn Grace Cagriaga, Camille Joy C. Agcaoili, Mark Gideon Villanueva (CHS)</i> Adviser: <i>Prof. Janelyn V. Rojas</i>
11:21-11:40	Multi-locus assessment of nucleotide substitutions of growth-related genes in cattle ( <i>Bos indicus</i> )/ <i>Hazel H. Achuela (CAFSD)</i> Adviser: <i>Prof. Peter James C. Icalia</i>
11:41-12:00	Growth and developmental stages of squid eggs <i>Sepioteuthis lessoniana</i> (Blainville, 1823) and hatching percentage using different flow rates in vivo conditions/ <i>Felix R. Olivas, Jr. (CASAT)</i> Adviser: <i>Prof. Andres Y. Tungpalan</i>

## LUNCH BREAK

1:01-1:20	Survey and characterization of landraces of winged bean ( <i>Psophocarpus tetragonolabus</i> L.) in Ilocos Norte/ <i>Frances Charlyn G. Batara (CAFSD)</i> Adviser: <i>Prof. Geovannie S. Malab</i>
1:21-1:40	Design, fabrication and valuation of heating chamber for bench scale black garlic processing/ <i>Walter John B. Iduria, Arden S. Torres (COE)</i> Adviser: <i>Prof. Ian V. Romas</i>

1:41-2:00	Generating binakol patterns using mathematical algorithm/ <i>Emerald May T. Madalipay (CAS)</i> Adviser: <i>Prof. Lawrence A. Eclarin</i>
2:01-2:20	Development of a web-based ordering system for restaurants/ <i>Nympha Jane S. Agupong, Justine Keneth U. Angel, James Philip U. Ulit, John Jerick P. Bagasol, Jun Clifford M. Padayao, Rogelio F. Gamboa, Jr. (COE)</i> Adviser: <i>Prof. Aljay B. Santos</i>
2:21-2:40	Formulation and evaluation of earthenware body utilizing San Nicolas clay calcined rice hull for the production of cooking pots/ <i>Rotsen R. Pasion (COE)</i> Adviser: <i>Prof. Emie Salamangkit-Mirasol</i>

## 3:01-4:00 EVALUATORS' DELIBERATION

### Session B. Arts, Education, Health and Social Sciences

Moderator: Ms. Nataliza L. Llapitan

9:01-9:20	Social media discourses on domestic violence toward human rights empowerment/ <i>Daniel P. Tapaoan, Jr., Mia Jeenina G. Tamayo, Eugeorgie P. Pinguian (CAFSD)</i> Adviser: <i>Dr. Frederick F. Rodrigo</i>
9:21-9:40	Production and pretesting of an Iluko instructional video on improved tomato storage technology as a training supplement/ <i>Lord Ian R. Galano, Mary Joy T. Guillermo, Leah Mae P. Malaqui (CAFSD)</i> Adviser: <i>Prof. Love Grace DC. Campano</i>